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ALIGNMENTS

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Novel anti-microbial protein from useful for controlling microbial :
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                                                                                                                                                                                                                          (first entry)
                                                                                                            96AU-0004275
                                                                                                                            97WO-AU00874
                                                                             Green JL, Manners JM,
                                     n e.g. Macadamia infestations of
                                                                             Marcus
                                     integrifolia - plants or mammals
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The sequence is that of an antimicrobial protein which can be used to control microbial infestations in plants and mammalian

Claim 1; Page 58-60; 96pp; English.

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RESULT
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        Macadamia integrifolia antimicrobial protein.
                       27-OCT-1998
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                                                     W62830 standard; Protein; 625
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                                                                                          ddeddrrgghslqqcvqrcrqerprysharcvqecrddq----qqhgrheqeeeqgrg 83
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Pred. No. 9.6e-33;
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WO9827805-A1
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Matches 20
Novel anti-microbial protein from e.g. Macadamia integrifolia
                    N-PSDB; V42310
                             WPI; 1998-377279/32
                                              Bower NI,
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20; Conserv
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                                              Goulter KC,
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Best Local S
Matches 19
           calcium upstake, indicating that the proteins expressed by the clones are capable of forming a functioning calcium channel. Nucleic acids encoding the 3 subunits, as well as vectors, host cells and methods of isolating nucleic acids encoding related calcium channels are disclosed. Fusion proteins incorporating
                                                                            This polypeptide comprises the alB subunit of the human neuronal calcium channel. cDNA clones (see V29059-61) encoding the alB subunit, the a2d subunit (see W37879) and a b3 subunit (see W37880) have been isolated. These have been inserted into expression vectors and are stably expressed in transformed cell lines. The transformed cells show omega-conotoxin GVIA binding activity, and omega-conotoxin GVIA toxin sensitive potassium-stimulated calcium unstake indicating that the proteins of the contexts.
subunit proteins,
                                                                                                                                                                                            Disclosure; Fig 1; 89pp; English.
                                                                                                                                                                                                                                     DNA encoding human neuronal calcium channel subunit(s) - useful for diagnosis of and treatment of central nervous system disorders, e.g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The sequence is that of an antimicrobial protein which can be used to control microbial infestations in plants and mammalian animals.
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                                                                                                                                                                                                                                                                                                                         ARS,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   e1; human; central nervous system syndrome; diagnosis; therapy.
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                                                                                                                                                                                                                                                                                                                                                                             96US-0713118
                                                                                                                                                                                                                                                                                                                                                                                                         97WO-US16146
  antibodies, and assays
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                                                                                                                                                                                                                                                                                                                        Shuey DJ;
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             incorporating the
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RESULT
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         anticancer and cytostatic activity. (A) are used (i) for recombinant expression of polypeptides (B) and (ii) to isolate complete genes. (B) are used (i) to identify agents suitable for treatment of uterine or endometrial cancer; (ii) directly for treating these forms of cancer (including expression from gene therapy vectors) and (iii) for generation of specific antibodies. (A) are identified by assembling ESTS (expressed sequence tags) from a particular tissue type before comparison of expression patterns. This allows a significantly longer fragment of the gene to be revealed, so should reduce the number of failures associated with the fact that ESTS from different libraries may represent different parts of the same unknown gene, distorting the estimated frequency of occurrence in a particular tissue. Y59941-Y60328 represent protein the stored of the third that the term of the treatment of the 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         that modulate calcium channel activity are also provided. Such agents can be used to treat crain central nervous system disorders by altering calcium channel activity. Methods of diagnosing diseases associated with particular calcium channels, such as Lambert-Eaton syndrome, are disclosed.
                                                                                                                                                                                                                                                                                                                                                                                      Claim 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2097
                                                                                                                                                                                                                                                                                                                                    This invention describes novel human nucleic acid (cDNA) sequences (A),
                                                                                                                                                                                                                                                                                                                                                                                                                           New nucleic acid sequences expressed in uterine cancer tissues, derived polypeptides, for treatment of uterine and endometrial and identification of therapeutic agents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (META-) METAGEN GES GENOMFORSCHUNG MBH.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            treatment; uterine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Endometrium; human;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2048 hhhhh----rchrr-rdr----kqrslekgpslsadmdgapssavgpglppgegptgc 2096
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4 NHHHHGGHKSGQCVRRCEDRPWHQRPRCLEQ--
                                                                                                                                                                                                                                                                                                           are highly expressed in uterine tumour tissue and which have
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 r-rererrgersrsgerrgpsssss 2120
                                                                                                                                                                                                                                                                                                                                                                              Page 350-351; 444pp; German.
  encoded
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Ьy
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gene therapy; expressed sequence tag.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            40;
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Best Local S
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Best Local
                                                                                                                                              DNA encoding alpha 1E human calcium channel subunits have been isolated from an oligo dT primed human hippocampus library. The resulting clones, which are splice variants, were designated alpha 1E-1 and alpha 1E-3. These splice variants differ by virtue of a 57 bp insert in 1E-3. Alpha 1E-1 has a calculated mol. wt. of 254,836 and alpha 1E-3 has a calculated mol: wt. of 257,348. Alpha 1E-3 has a 19 AA insert relative to alpha 1E-1 in the region that appears to be the cytoplasmic loop between transmembrane domains IIS6 and IIIS1.
                        2006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R71009;
                                                                                                                            Sequence
                                                                                                                                                                                                                                                                 Claim 34; Page 201-211; 285pp; English.
                                                                                                                                                                                                                                                                                                    DNA encoding human calcium channel sub-unit(s) - developing prods for studying calcium channels,
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05-NOV-1993;
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                                                                   Local Similarity 31.
nes 22; Conservative
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                      dsghksdthpsggrerrrskerkhllspdvsrcnseergtqadwesperrqsrspsegrs 2065
                                            DNHHHHGGHKSGQCVRRCEDRPWHQRPRCLEQCREEER-----
  EADDRSGEGS
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17; Conserv
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                                                                                                                                                                                                                                                                                         agonists and
                                                                                                                                                                                                                                                                                                                                                                        Gillespie
                                                                                                                            2251 AA;
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93US-0149097
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antagonist; agonist; diagnosis;
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Pred. No. 0.9;
7; Mismatches
                                                                   Score 68.5; D. Pred. No. 12; 6; Mismatches
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                                                                                       Length 2251;
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RESULT
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R71010
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Best Local
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                                                                                                                                                                                                                                                                        been isolated from an oligo dT-primed human hippocampus library. The resulting clones, which are splice variants, were designated alpha 1E-1 and alpha 1E-3. These splice variants differ by virtue of a 57 bp insert in 1E-3. Alpha 1E-1 has a calculated mol. wt. of 254,836 and alpha 1E-3 has a calculated mol. wt. of 257,348. Alpha 1E-3 has a 19 AA insert relative to alpha 1E-1 in the region that appears to be the cytoplasmic loop between transmembrane domains IIS6 and IIIS1.
                                                                                                                                            2025
            Y07004;
                                                                                                                                                                                                                                                                                                                                                                                                                     DNA encoding human calcium channel sub-unit(s) - used developing prods. for studying calcium channels, e.g. obtaining agonists and antagonists
                                  Y07004 standard; Protein; 132
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05-NOV-1993;
                                                                                           2085 qtpnrqgtgs 2094
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (SALK ) SALK INST BIOTECHNOLOGY IND ASSOC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Calcium channel subunit; antagonist; agonist; diagnosis;
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2066 qtpnrqgtgs 2075
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                                                                                                                   50 EADDRSGEGS 59
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22; Conserv
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                                                                                                                                                                                          Conservative
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93US-0149097
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                                                                                                                                                                                                     19.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A
                                                                                                                                                                                                                                                                                                                                                                                              285pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2270
                                                                                                                                                                                       Score 68.5; Di
Pred. No. 12;
6; Mismatches
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                                                                                                                                                                 ----EKRQERS----RH 49
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W93954;
                                                                                                                                                                                                                                                                                                                                                        binds to the NAM, an expression product or a fragment of an expression product complexed with an HLA molecule; and (b) determining the interaction between the agent and the NAM or the expression product as determination of the disorder. The products and methods can be used in the diagnosis, monitoring, research, or treatment of conditions characterised by the expression of various cancer associated antigens. The invention provides nucleic acid sequences and encoded polypeptides which are cancer associated antigen research.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to a method for diagnosing a disorder characterised by expression of a human cancer associated antigen precursor coded for by a nucleic acid molecule (NAM). The method comprises: (a) contacting a biological sample isolated from a subject with an agent that specifically
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22-JUN-1998;
17-JUL-1997;
10-OCT-1997;
                           W93954 standard; Protein; 432
                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                 which are cancer associated antigen precursors expressed in human br
cancer, renal cancer, colon cancer, gastric cancer, prostate cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New isolated cancer associated nucleic acids and polypeptides isolated using sera from cancer patients, used to develop profor the diagnosis, monitoring or treatment of cancers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 389-390;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-132448/11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pfreundschuh M,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cancer associated antigen; diagnosis;
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10-OCT-1997;
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                                                                                                                                                                                     NHHHHGGH--KSGQCVRRCEDRP---
                                                                                                                                                                                                                                                                                                                       cancer.
                                                                                                tqnrsrsrsrerdghysn 116
                                                                                                                                                                                                                   l Similarity
18; Conserv
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                                                                                                                                                                                                                                                                                         132 AA;
                                                                                                                                                                                                                   Conservative
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97US-0896164.
97US-0061599.
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97US-0948705
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Sahin U,
                                                                                                                                                                                                                                 19.3%;
23.1%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         787pp; English.
                                                                                                                                                                                                                   12;
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Scanlan MJ,
                                                                                                                                                                                                                  Score 67.5; D
Pred. No. 0.82
12; Mismatches
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, Stockert E;
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                                                                                                                           Theobroma cacao antimicrobial protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This invention describes novel human regulatory molecules (HRM) which have cytostatic activity and act as immune modulators, transcription factors or enhancers. The HRMs can be used to stimulate cell proliferation. Antagonists and agonists of the proteins of the invention can be used to treat cancer. The encoding nucleic acids can be used in microarrays to detect polynucleotides (and their expression levels) that encode HRMs in a biological sample. The HRMs and microarrays can be used diagnose, treat or prevent cell proliferation diseases especially cancer, e.g. leukemia, lymphoma, myeloma, adenocarcinoma, sarcoma, cancer of e.g. bladder, bone, brain, lung, liver, ovary, skin, etc, teratocarcinoma, or to treat or prevent immune responses e.g. allergies, asthma, diabetes, multiple sclerosis, Grave's disease or myasthenia gravis.
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                                                             antimicrobial protein; infestation; control.
                                                                                                                                                                                               27-OCT-1998
                                                                                                                                                                                                                                                                                                                       W62831 standard; Protein; 525
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Shah P, Yue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 69-70; 76pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New human regulatory molecules
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (INCY-) INCYTE PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22-SEP-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
nes 17; Conserv
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H;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 67.5;
Pred. No. 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25;
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                              Claim 4; Fig 2; 59pp; English.
         The inventors claim a 67 kD and
                                                          Recombinant cocoa proteins - are responsible beans and produced in large quantities using
                                                                                        WPI; 1992-024418/03
N-PSDB; Q20377.
                                                                                                                       Spencer ME,
                                                                                                                                                              11-JUN-1990;
                                                                                                                                                                                  07-JUN-1991;
                                                                                                                                                                                                      26-DEC-1991
                                                                                                                                                                                                                                             Theobroma cacao
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                                                                                                                                                                                                                                                                                   Sequence encoded by
                                                                                                                                                                                                                                                                                                                           R20181;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel anti-microbial protein from e.g. Macadamia useful for controlling microbial infestations of
                                                                                                                                          (MRSC ) MARS
                                                                                                                                                                                                                                                                                                      16-APR-1992 (first entry)
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                                                                                                                                                                                                                                                                                    67 kD T. cacao protein cDNA
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44.78;
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Pred. No. 4;
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kD T. cacao protein, and 47 kD and 31 kD proteins
                                                                                                                       Ashton
                                                          for flavour in cocc
yeast and bacterial
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                       R33550 standard; Protein; 2237 AA
                                                                                                                                                                                                                             The sequence is that of an antimicrobial protein which be used to control microbial infestations in plants and
                                                                                                                                                                                                                                                                                        Novel anti-microbial protein from e.g. Macadamia integrifolia - useful for controlling microbial infestations of plants or mammals
                                                                                                                                                                                                                                                                                                                            WPI; 1998-377279/32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     antimicrobial protein; infestation; control
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                                                                                                                                                                                           Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                   20-DEC-1996;
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nes 17; Conserv
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                                                                                                                                                                                            590 AA;
                                                                                                                                Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                   96AU-0004275
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                                                                                                                                          19.1%;
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%; Pred. No. 4.5;
12; Mismatches
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                                                                                                                                                                                                                                                            additonal segments of the alpha 1B coding sequence. A full-length alpha 1B DNA clone was constructed by ligating portions of the partial cDNA clones (see Q37817, Q37818). Alpha 1B-1 and alpha 1B-2 are derived by alternative splicing of the alpha 1B subunit
                                                                                                                                                                                                                                                                                                                      to identify overlapping clones that in turn were used to screen a human hippocampus cDNA library. In this way, a sufficient series of clones to span nearly the entire length of the nucleotide sequence encoding the human alpha 1B subunit was obtained. PCR amplification of specific regions of the MX32 cell alpha 1B mRNA yielded additional posmotte of the MX32 cell alpha 1B mRNA yielded.
                                                                                                                                                                                                                                                                                                                                                                                                     DNA encoding the alpha 1B subunit was isolated by screening a human basal ganglia cDNA library with fragments of the rabbit skeletal muscle calcium channel alpha 1 subunit-encoding cDNA. A portion of one of the positive clones was used to screen an IMF cell cDNA library. Clones that hybridized to the basal ganglia DNA prove were used to further screen an IMF32 cell cDNA library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA encoding specific human calcium channel sub-units identifying calcium channel agonists and antagonists diagnosing Lambert Eaton syndrome
2099 r-rererrgergrsgeprgpsssss
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Williams ME;
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                                                                                                                                                                                                               Sequence
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10-APR-1992;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-AUG-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-MAR-1993.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence of the alpha 18-2 human calcium channel subunit.
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92US-0868354.
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